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# Some reflections on environmental attitudes and environmental behaviour

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**Summary.** *The divorce between attitudes and behaviour is discussed. New approaches to environmental issues need to be developed in place of attitude surveys.*

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Over the past five years or so, geographers in company with other social scientists have been interviewing variously chosen samples of the general public in order to ascertain their views about environmental issues. (For a review, see Saarinen, 1969, 1971). Invariably these surveys have revealed an increasing concern over environmental deterioration on the part of a majority of interviewees; exceptions, it is commonly found, are respondents of a low socio-economic status who tend to display less interest in environmental affairs than in more immediate problems such as jobs, housing, crime control and education. (See, for example, Tognacci, *et al.*, 1972). Nevertheless, in a major survey of American opinion polls, both Munton and Brady (1970) and Erskine (1972) have shown that in the five years 1965–70 the issue of reducing pollution rose from ninth out of ten most serious problems facing the United States to second (behind the state of the economy). The percentage of those expressing a willingness to contribute more of their income to clean up the environment increased from around 40% in 1967 to over 60% in 1970.

Such surveys, however, monitor only the expression of concern; they provide little or no indication of commitment on the part of the individual to accept some measure of sacrifice to bring about improved environmental quality. In other words, public opinion surveys do not necessarily bring to light the full connection between verbal statements and overt action. Deutscher (1966) commented over six years ago that social scientists have a responsibility to ensure that their research be as reliable as possible, and that interpretations of their results be made within the available methodology. Yet it is difficult not to fall into the trap of assuming that people are likely to do what they say they are willing to do. This seems particularly true in the case of decision-makers, who appear to have limitless appetites for percentages and simple statistical tables, and who use these in generating and defending policies.

## Attitudes versus actions

The precise nature of the link between verbal statements and subsequent behaviour has plagued social scientists for over forty years. The debate continues with some, such as Tarter (1970, p. 276), feeling that 'attitudes, as presently conceptualized, play no real role in behaviour', while others, such as Turner (1968) state that '... given opportunity, the absence of countervailing attitudes and an appropriate situation, one predicts behaviour from attitude on the basis that behaviour is a direct reproduction of attitude'. There seems however, to be a consensus forming around the view that the processes which link attitude to behaviour are extremely intricate and as yet only partly understood, and that

present theories and techniques for eliciting attitudes fail to comprehend adequately the complexity of this linkage. Lauer (1971, p. 247) summed up this view when he wrote that the 'fault lies both in the failure to create research designs that reflect the complexity of the problem, and in the tendency to exalt the importance of the proximate causes of overt behaviour'.

The concept of attitude to the social psychologist seems rather like the concept of region to the geographer—both are essential building blocks of their respective disciplines, but no one has quite worked out the right mould. Rather than a thing in itself, an attitude seems more to be a *mediating process* which connects a stimulus (an object or situation or both) and a response; it acts as a kind of a learned predisposition which enables an individual to relate to the stimulus in a favourable or unfavourable manner.

It is generally agreed that attitudes have at least two components, *cognitions* and *affects*. Cognitions, or beliefs, are feelings about different components of an object or situation: for example, carbon monoxide is odourless; carbon monoxide is emitted from motor vehicles. Affects are evaluative judgements (good, bad, liking, disliking) which are usually associated with these cognitions: for example, carbon monoxide is injurious to health, I value good health, therefore I dislike carbon monoxide.

Many social psychologists have included a third attitudinal component, namely a *predisposition to act*, but the existence of this aspect of attitude is now in dispute (Lauer, 1971). For any given stimulus there may be a variety of meanings attributable to different components of that stimulus, and depending upon the situation in which one finds oneself confronted with the stimulus, one or a number of these meanings may appear more appropriate or *salient* in influencing behaviour. If these components of the stimulus produce different meanings at different times then both the attitudes and especially the behaviour towards the stimulus may appear inconsistent. For example, to a backpacker in the wilderness, a tree is tall (cognition), beautiful (affect) and should be protected: but if the backpacker is also a lumberman, the same tree at a different time may be large (cognition), valuable timber (affect) and should be cut down.

Likewise, behaviour is a multi-faceted phenomenon. Ehrlich (1969) points out that before attitudes can be consistent with behaviour, the individual actor must know which of a variety of possible behaviours will be consistent, there must be no restrictions to possible behaviours, and the actor must be capable of performing the various acts contemplated.

Which set of cognitive structures actually influences a specific behavioural pattern appears to depend upon such factors as the value systems of the individual, his previous experience, his knowledge of the likely consequences of his actions (and his willingness or predisposition to gain new knowledge), the extent to which he feels he is responsible for his own acts, and the nature of the situation in which his behavioural decision is made. This last point is particularly important yet is often overlooked. All too frequently the 'attitude-perception' survey is designed to elicit a response from an individual either about his likely behaviour in a situation far removed from the one in which he is being interviewed, or toward 'cosmic' questions to which there may be dozens of appropriate behaviours depending upon the situation. Keisler and his colleagues (1969, p. 35) sum up this point rather well:

... attitudinal measures frequently make broad and philosophical attitudes salient, whereas behavioural measures make specific and immediately personal

attitudes salient. We can therefore expect a low correlation between attitude and behaviour in those cases where one set of such attitudes is salient in the testing situation, whereas another set of subattitudes is salient in the behavioural situation.

### **Environmental words and environmental deeds**

With such a complex phenomena as 'environment' or 'pollution' it is easy to see how different situations, varying degrees of knowledge and a number of competing motives can diminish the likelihood of any reasonable predictability between attitude and behaviour. Yet, in the final analysis, the success of the current environmental movement will be measured by a shift of public behaviour towards more harmonious environmental *acts*, not simply by widespread verbal expressions of *concern*.

Farb (1968) and Guthrie (1971) have commented on the fact that primitive cultures, while professing an ethic of man-nature harmony both in belief and in writing, have nevertheless wrought much environmental damage. Guthrie (p. 722) goes as far as to state that the 'harmony' belief was exercised primarily to safeguard survival: it did not prevent ecologically disastrous practices or the prevalence of polluting habits. Tuan (1968, 1971a, 1971b) has provided convincing evidence that ancient cultures despoiled their landscapes despite their expressed beliefs regarding the sanctity of nature. The Chinese for example, cut down or burnt much of their forests, an action which led to widespread soil erosion, to meet the demands for fuel, construction materials, cultivation or warfare. Yet they worshipped and protected sacred groves.

There may be, in fact, an inherent duality of thought and action toward nature, regardless of the technological level of culture. 'Philosophy, nature poetry, gardens and orderly countryside are products of civilization', observed Tuan (1968, p. 184), 'but so equally are the deforested mountains, the clogged streams, and, within the densely packed walled cities, the political intrigue'. Tuan seeks an explanation partly in the differences between the authenticity of words and their cultural meaning as interpreted through behaviour. Words, he feels, are rarely more than a conventional mode of behaviour, and bear little weight of actuality. Because of this, he concludes (Tuan, 1971a, p. 190), 'nature advocates push for programmes based on, at best, hastily examined relations between man and nature, health and organic food, quality of life and wilderness experiences'.

The commonest expression of this duality is found in the conflicting needs that man seeks to satisfy from the natural environment. Kates (1969) has noted that the objectives of environmental planning have traditionally been separated into three areas, the protection of physical and mental health, the enhancement of economic value, and the preservation of sensory and participatory pleasure. The environment is to be all things to all men: it is to be life-supporting, useful and yet beautiful. The forest is to be cleared for cultivation, logged for jobs and economic gain yet protected for watershed maintenance, aesthetic pleasure and quasi-religious reverence.

At different times, therefore, varying bundles of cognitions and associated effective dispositions relating to nature are salient to particular groups of people, and not infrequently the linkage between these attitudinal components is tenuous. The result is cognitive conflict both between individuals and groups

and within the individual as different needs and situations stimulate attitudinal responses.

The result of this may be a sort of 'environmental schizophrenia', the separation of beliefs and actions into distinct parts, for example the Sierra Club member who opposes a power development on the one hand, yet is a high power consumer on the other. Or it may be reflected in hypocrisy. Ridgeway (1970) has exposed, for example, the practices of certain US corporations who befoul the environment on the one hand yet contribute to the funds of environmental action groups on the other.

There is evidence that attitude-behaviour inconsistency exists even with more committed environmental advocates. Barnett (1971) found that members of Zero Population Growth expressed a strong interest in family life and that a majority desired two natural children despite their realization that only one natural child should be raised per family if their hopes for early population stability were to be fulfilled. He concludes (p. 764):

Particularly in view of the fact that this finding is from members of a population control organization, it further supports the proposition that there is no intrinsic link between concern with population growth as a general problem and the personal commitment to limit the number of one's natural children to what is necessary for population stabilization in one's lifetime.

This last example pinpoints an important feature of the environmental attitude-behaviour relationship. Environmental issues are widely regarded as a reflection of how imperfectly society manages public goods. 'The presence of pollution is the absence of community'. Many environmental issues can be subdivided into a personal or individual component and a societal or external component. In the Barnett example, the internal environment emphasizes the pleasantness of the family circle and the companionship of two children; the external environment encompasses world population growth, and the possibility of diminishing food and other resource supplies. Brown (1963) has shown that where cognitions about an attitude object conflict, it is possible to resolve the dissonance (and hence to avoid the confrontation) by discriminating between the different components. Compartmentalization of cognition encourages compartmentalization of behaviour.

### **Perspective**

The link between environmental words and environmental deeds is weakly understood. The continuance of 'paper and pencil' attitude surveys will not overcome this problem, only exacerbate it. There is an urgent need to refocus the methodology in this area, and two lines of research are suggested (see also Campbell, 1963). The first is to investigate behaviour, rather than attitudes by isolating those people who have overtly acted in a particular way from those who have not done so. For example, those who have converted to smokeless forms of space heating, or have recycled their waste paper and cans, or adopted some measures of self-protection against various forms of natural hazard. By treating behaviour as the dependent variable it may be possible to identify the various influences which led to the specific act in question. Insights into these influences can be achieved through such techniques as attitude battery tests, projective devices and in depth individual or group interviews. By so doing, it should be possible to identify those factors, social, structural and psychological which either promote or inhibit overt action.

A second approach might be to investigate more deeply the cognitive structure of the individual along lines such as those suggested by Kelly (1955). Kelly's construct theory attempts to understand *how* individuals conceptualize and organize their milieu, rather than *what* they believe. The focus is on the process of cognitive linkages and the hierarchy of belief systems rather than the content of these things. It may then be possible to analyze how belief systems concerning, say, environmental issues are structured, the extent to which they potentially or actually conflict, and the degree to which the person copes with this conflict through such means as differentiation, dissonance resolution, etc. A key factor here may well be the ability of the individual to integrate complex cognitive structures, to tolerate ambiguity and indeterminate outcomes, and to seek to absorb new and sometimes conflicting information (Harvey, *et al.*, 1961).

Most if not all environmental issues involve ambiguity, uncertain outcomes and limitless streams of information. Individuals and groups attach a variety of meanings to these complex components and a multitude of situations are offered in which they can act. Conflicting environmental attitudes and inconsistent environmental behaviour are therefore quite probable; the extent to which these conflicts are irreconcilable is as yet largely unexplored.

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